
Audit Risk Assessment and Influence on the Auditor's Opinion

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Abstract

Risk is one of the most controversial elements that auditors face in audit missions. This refers to the probability that significant misstatements will exist in the financial statements of companies, and the auditor will issue an unqualified opinion, therefore an erroneous opinion. For the auditor, the audit risk can be considered an economic risk, which requires the professional accountant to try to minimize this risk. Accurate identification and evaluation of the risk factors that characterize the three components of the Audit Risk - Inherent Risk, Control Risk and Detection Risk - contribute to a rigorous planning of the audit approach. In other words, the identified risks will be the basis for orienting the auditor's efforts towards those areas where distortions can lead to the alteration of the true image reported by the users' financial statements.

In this study are identified and prioritized, based on financial reports in general, and of the audit, in particular the risk factors that characterize Audit Risk on three components: Inherent Risk, Control Risk and Detection Risk.

The sample studied is represented by companies listed on the Bucharest Stock Exchange on the regulated market, and the cause-effect analysis, but also cross-sectional analysis takes into account the period 2019-2020, before the crisis caused by Covid-19 and year of installation of the crisis. By testing and validating research hypotheses using regression methods and multivariate data analysis, it is highlighted that a ranking of audit risk components can be made, the inherent risk having a greater influence on audit planning than control risks and detection risks. Also, at the level of the analyzed sample, a company profile is identified, depending on the object of activity, auditor, the size of the audit risk and the opinion formulated in the audit report for the financial year closed at the end of 2020.

Key words: audit risk; inherent risk; control risk; detection risk; audit opinion; financial reporting;

JEL Classification: C12, M41, M42, M48

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1. Introduction

It is known that the nature, duration and extent of the procedures used by the auditor to collect evidence in an audit mission are also influenced by the risks of the audit. According to International Standards on Auditing, *Audit Risk (AR)* is the risk that the auditor will express an inadequate audit opinion if the financial statements are significantly distorted (IAASB, 2018). In other words, acceptable audit risk is a measure of the degree to which the auditor is willing to accept that the financial statements may contain material misstatement, even if an unqualified audit report has been issued. The auditor is required to accept a certain level of risk, due to the inherent limitations of any audit engagement. However, the auditor should keep this risk to a minimum so that the degree of assurance offered by his opinion on the reliability of the financial statements is as high as possible. This is possible when the auditor identifies risk factors very well and directs his procedures to the areas where errors and/or fraud are most likely.

The studies have shown that a quality audit has a significant positive effect on the performance of companies, the results obtained being considered relevant especially for stakeholders in countries with emerging capital markets (Sailendra, Murwaningsari & Mayangsari, 2019). It is considered that audit risk acceptable to the auditor should be much lower, as external users rely more on audited financial statements, the higher the risk the entity of non-continuous employment is higher and as the competence and integrity of management are more doubtful. In other words, the higher the total risk (economic, financial and bankruptcy) of the company, the higher the degree of assurance of the auditor must be and the accepted audit risk must be more lower. (Muñoz-lzquierdo, 2019). Therefore, the audit risk is complementary to the degree of assurance (DA).

Practice recommends that the acceptable audit risk not exceed 5%. Under these conditions, the DA will exceed 95% (ICAS & CAFR, 2019). Among the factors that contribute to reducing the audit risk are: collecting a larger volume of evidence, assigning the mission to competent and experienced auditors, rigorous monitoring of the activity of the team of auditors, but also other factors. Compared to the significance threshold, which can be determined by categories of transactions, the audit risk is estimated only on all financial statements. The studies brought into question econometric models of material

readjustment through rapid audit tests applied on sustainable companies (Grosu, Mateș, Zlati, Mihaila, Socoliuc, Ciubotariu & Tanasă, 2020).

Although the estimation of audit risk is subjective, it can still be determined according to the following model: **Audit Risk = Inherent Risk x Control Risk x Detection Risk** (Arens & Loebbecke, 2003). Can establish a hierarchy of influence risk components of audit risk? The answer to this question is given after conducting the study in this research.

2. Literature review

The publication of a standardized audit report for public interest entities, without describing the significant risks identified during the audit process, is no longer relevant. Currently, audit reports provide more information to stakeholders. Certainly, a part of major interest is the one related to the risks identified in the audit process, which in terms of reporting are found with the name of key audit aspects - KAM (Grosu, Robu & Istrate, 2020). After changing regulations studies have shown that in Romania, most auditors complied with the ISA requirements regarding the presentation of key audit issues, noting that there are different approaches to the average number of key audit issues described in the report. their nature or the disclosure of the materiality threshold established in the audit mission (Levanti, 2019).

Inherent risk (IR) refers to the susceptibility of an account balance or class of transactions to contain distortions that could be significant (individually or cumulatively), assuming that there are no internal controls (IAASB, 2018: ISA 200). From the auditor's point of view, the inherent risk is a measure of the estimate, that he makes on the likelihood of significant misstatement of the accounts before assessing the effectiveness of internal control over the prevention or detection and correction of errors and/or fraud. Internal control is ignored because its risk is a separate factor in the audit risk model. The estimation of the inherent risk takes place after the knowledge of the client entity, when the possible areas of occurrence of erroneous presentations can be identified. The probability of error and/or fraud is higher, the estimated inherent risk will be higher. An inherently high risk forces the auditor to collect a larger volume of evidence so as to help reduce the audit risk. The Guide to a Quality Audit - GQA (ICAS

& CAFR, 2019) breaks down the inherent risk into two components: *General Inherent Risk (GIR)* and *Specific Inherent Risk (SIR)* and recommends a method based on statements that are associated with a risk factor from *Very low* to *Very high*, for the GIR estimate. The statements concern four directions: *Management, Accounting, Company Activity and Its Audit*. After evaluating the GIR, the auditor will turn his attention to the Specific Inherent Risks (SIR) of the structures of the financial statements, and for their appreciation, it will respond to a set of six questions, which are taken from the minimum standards of audit (MSA), because they are missing of GQA (CAFR, 2001).

The six questions focus on finding out why errors are expected? Based on the answers to the questions asked, the auditor determines the SIR for each significant section or area from *Very Low* to *Very High*, as in the case of GIR. A number of statements/questions related to inherent risk have in mind complex accounting policies and we can mention here increasingly difficult techniques with rapid implementation that increase the complexity of audit missions, such as those related to hedge accounting (Singh, 2019). Also in an emerging context, in which the concept of fair value, as well as its implementation and its audit, are relatively new, the studies focused on verifying the awareness of the estimation risk induced by the evaluation process, depending on the quality of internal control (Deaconu, Ciurdaș & Bonaci, 2021).

Among the aspects that characterize the inherent risk and that refer to its third direction - *the company's audit* - a frequently encountered element considers the continuity of the entity's activity, studies showing that in 30% of the analyzed reports, auditors introduced paragraphs highlighting some aspects, and the main element found here is the (non) continuity of activity (Istrate, Bungeț & Popa, 2020). Currently, an inherent risk factor frequently mentioned in audit reports, either as a key issue or reported in the review paragraph, is related to the effects of the Covid-19 pandemic on business continuity, although studies have also been conducted for reporting from the end of 2019, when these aspects were reported as subsequent events (Crucean & Hațegan 2021; Apostol, 2020). Also in this register, the researchers found that the

companies for which audit reports were issued without mentioning aspects related to the discontinuity of activity report losses in the following periods more than the companies for which audit reports were issued in which they are mentioned. aspects of business discontinuity (Kim, 2021).

Control Risk (CR) refers to the probability that significant misstatements of the financial statements cannot be prevented or detected and corrected by the entity's internal control (IAASB, 2018: ISA 200). It is about the risk that the information will be significantly distorted prior to the mission (IAASB, 2018: ISAE 3000, revised). This risk is assessed by the auditor after obtaining an understanding of the entity's control environment using *Risk Evaluation Tests (RET)* and after obtaining evidence of the operational effectiveness of internal controls using *control tests (CT)*. Practice highlights that the auditors set maximum levels for control risk because often the degree of trust in the *Internal Control System (ICS)* of the entities is low. However, there are exceptions, such as: the auditor's identification of well-designed and effective internal controls or when the auditor plans to perform extensive control tests to support a lower level of control risk evaluation. It is important to know that control risk is included in the audit risk equation only when the auditor assigns a certain degree of confidence to internal control and, as a consequence, the scope of substantive analytical procedures is reduced. Among the risk factors associated with the audit risk components, those associated with the control risk are largely qualitative factors. These are, more precisely, indicators specific to corporate governance, among which are: duality - executive director / general manager, existence of the audit committee, unitary or dual management system (Dobre, 2016; Dumitrescu, Bungeț, Burcă & Bogdan, 2021).

Empirical research has shown that the duality - executive director/general manager, the number of non-executive directors, the presence of women on the Board of Directors, the existence of the audit committee and the audit opinion influence the entity's performance measured by profitability indicators (Bungeț, et al., 2020). The attitude of the management for the efficiency of the internal control system, as a form of quality assurance of accounting information, should not be perceived as an

obligation, but rather as an assurance of responsible reporting (Ciuhureanu, 2016). Regarding the mission, vision and organizational values, studies have shown that only 54% of companies listed on BVB present their values (Dumitrașcu & Feleagă, 2019). Once the RC is estimated, the auditor will assess the confidence placed in the substantive analytical procedures.

In terms of risk, it is about **Detection Risk (DR)**. Risk of detection is a measure of the risk that the procedures used by the auditor in collecting evidence will not detect significant misstatement (IAASB, 2018: ISA 200). It can thus be found that IR and CR belong to the audited entity and cannot be controlled by the auditor, and the risk of detection is somewhat under the control of the auditor. Certainly, the development and generalization of automatic data processing improve performance by automating processes (Lacurezeanu, Tiron-Tudor & Bresfelean, 2020), but also bring new vulnerabilities and weaknesses that may underlie the risks induced by cyber-attacks on audit activity. financial (Popescu & Popescu, 2018; Hu, K., H., Chen, F., H. & We, W., J., 2016).

We know that the auditor is not responsible for the sustainability and profitability of the audited entity, but becomes liable if the report misinforms the users of the financial statements. The audit risk is considered an economic risk for the audit firm, in the sense that the auditor may be required by law to cover certain damages required by users of the financial statements, in case the customer - entity goes bankrupt after performing an audit, so to speak, "suitable". There are studies, in recent years, that have highlighted the ways in which auditors can limit their liability and protect themselves professionally (Măgdaș, 2018).

Based on such situations, the *International Auditing Standards* (ISA) on reporting have been amended in recent years, by introducing key audit issues (KAM) in auditors' reports, as a separate part, precisely to support the audit opinion expressed, a series studies analyzing the evolution of audit reporting in recent years and the role it has (Fülöp, 2018; In, Kim & Park, 2020; Iwanowicz & Iwanowicz, 2019). The integrity and credibility of financial statements are sensitive issues that significantly influence investor confidence in the efficiency of capital markets, although the level of communication of Romanian companies with

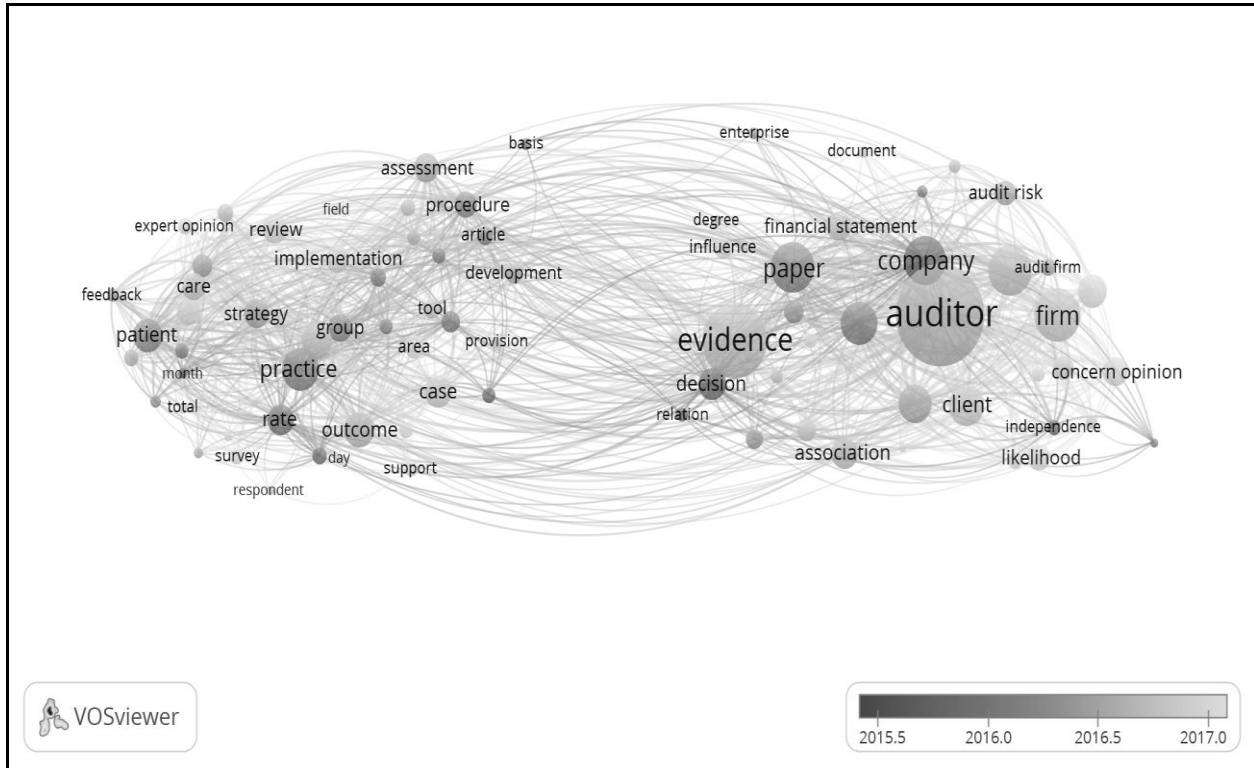
investors is considered to be still low (Hațegan, 2020).) On the other hand, the research carried out highlighted the fact that the audit opinion influences the prices of financial assets (Dănescu & Spătăcean, 2018; Dicu, et. Al., 2020). Also, among the main components of the financial statements (cash flow statement, profitability component and current asset structure component), only the profitability component has a significant influence on transparency in financial reporting, assessed based on the audit opinion (Robu, Istrate & Herghiligiu, 2019).

The contribution of the audit opinion to the increase of the quality of financial information, measured by the degree of sales manipulation, was studied by the authors, who concluded that in case of manipulation by overproduction, the audit opinion does not exert significant influences. possible limitations of the audit approach in terms of the ability to identify corrupt activities associated with production (Carp & Georgescu, 2019).

The audit risk evaluation method recommended by GQA is considered by some authors (Span, 2013) interpretive and with a high degree of subjectivity and come with proposals for improvement models that increase the degree of accuracy, precision and objectivity and that highlight more clearly the differences between the audited entities. Also, the research carried out at national level (Robu, 2014) classified the companies listed on the Bucharest Stock Exchange into certain groups, according to the risk of financial fraud, as part of the inherent risk or potential control risk, as well as according to the risk of money laundering (Grosu & Mihalciuc, 2020). Other studies performed for risk analysis in the financial audit took into account the method of trust functions, which gives an important role to professional reasoning at the time of planning and during the mission of the audit (Tanasă & Nuță, 2020).

A synoptic presentation of the articles on risk and audit opinion found in the *Web of Science* database over the last ten years is shown in **Figure no.1**. A number of 328 articles were selected according to the search words: *risk* and *audit opinion*. After removing the irrelevant terms, a number of 88 terms were kept for mapping.

Figure no. 1. Map on the links between the topics covered in the field of financial audit (audit risk and audit opinion) and the evolution over the last ten years (Web of Science)



Source: Own processing using VOSviewer

If we analyze the presented map, it can be seen that the topics on audit risk and reporting in this direction have focused, in recent years, on a staging as follows: in the first period of the analyzed period, the focus was on the company, taxation, decision, followed by audit practices and procedures, evaluation, audit risk, documentation, so that in the last period analyzed, the emphasis will be on quality review and on issues related to business continuity. The formed clusters highlight the fact that the audit risk is related to business continuity, documentation, financial statements, independence, and the audit opinion is related to terms such as: trust, evaluation, implementation, strategy.

Based on the results identified at the level of the consulted specialized literature, in the present study the following research hypotheses are proposed for testing and validation:

1. *At the level of Romanian companies listed on the BSE (Bucharest Stock Exchange) on the regulated market, the risk factors related to the Audit Risk components*

can be ranked according to their influence on the Inherent Risk, Control Risk and Detection Risk.

2. *A better ranking of the components of audit risk - Inherent Risk, Control Risk and Detection Risk - helps to properly plan the auditor's mission.*
3. *It can identify a profile of Romanian company listed on BSE on the regulated market, depending on the object of activity, auditor, the size of the audit risk and the opinion formulated in the audit report.*

3. Research methodology: population, sample, variables, data source, data analysis methods

Testing the research hypotheses proposed in the study involves the use of a statistical approach (Jaba, 2002).

This approach involves: identifying the population, selecting the sample, choosing the variables, establishing the data analysis methods and proposing the econometric models to be analyzed, collecting and processing the data, as well as obtaining the research results and interpreting them.

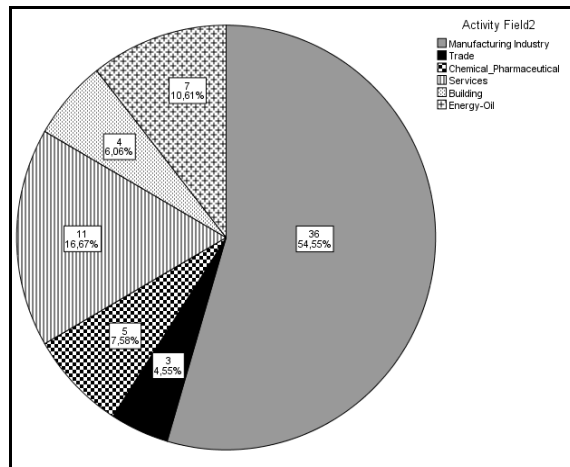
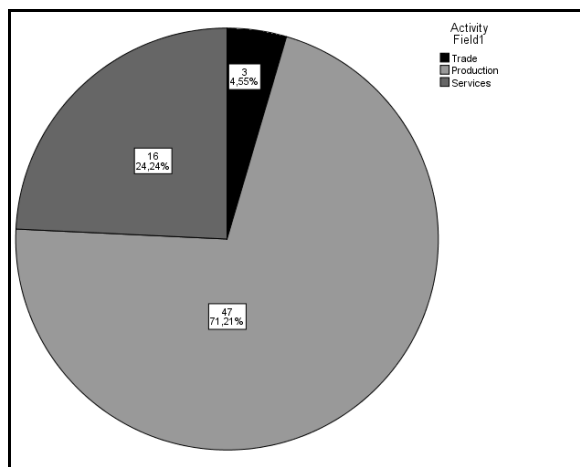
3.1. The population studied and the sample analyzed

The population analyzed in this study is represented by all companies listed on the Bucharest Stock Exchange (BSE) subject to statutory financial audit, in accordance with Law no. 162/2017 regarding the statutory audit of the annual financial statements and of the consolidated annual financial statements and of the modification of some normative acts, published in the Official Gazette of Romania no. 548/12 July 2017, and the selected sample includes only companies on the regulated market. Of the 80 companies listed at the end of the financial year 2020, a number of 14 companies were excluded, 13 companies being represented by entities in the financial-banking, insurance or financial intermediation fields, as they must meet other criteria in the financial reporting, and

the audit reports are based on the requirements of these reporting frameworks and are not comparable with the audit reports of the other firms for which the data were unavailable and a firm for which the data were unavailable. Thus, the analyzed sample includes 66 listed companies, for which data were collected related to the financial years ended at the end of 2019 and 2020. The study covers only the financial years 2019 and 2020, in order to compare the results obtained before the crisis generated by the Covid-19 pandemic and those obtained even in the year of the crisis.

Depending on the activity field, the analyzed sample includes 47 companies in the field of production, 16 companies in the field of services and 3 companies in the field of trade. After a more analytical classification of objects of activity, the analyzed sample includes 36 companies operating in the manufacturing industry, 11 companies in the service field, 7 companies in the energy-oil field, 5 companies in the chemical-pharmaceutical field, 4 in the building field and 3 companies in the field of trade. The graphs in Figure no. 2 show the distribution of the sampled companies by activity field.

Figure no. 2. The sample analyzed by activity field



Source: Own processing in SPSS 23.0

3.2. The variables analyzed, the data source and the models proposed for testing

In order to test and validate the proposed research hypotheses, the study aims, first of all, to identify the factors that characterize the components of audit risk, namely inherent risk, control risk and risk of detection, starting from

the literature, to remove evidence which of these factors has a significant influence on the risks mentioned. Subsequently, the hypothesis regarding the manifestation of the influence of the three risks on the audit risk is tested. A better ranking of the components of audit risk - inherent risk, control risk and detection risk - is considered to help in a proper planning of the auditor's mission. Finally, the aim is to identify the profile

of the Romanian company listed on BSE on the regulated market, depending on the object of activity, auditor, the size of the audit risk and the opinion formulated in the audit report.

The data were collected manually from the individual financial statements prepared in accordance with IFRS, from the audit reports, from the directors' reports, as well

as from the corporate governance statements of the companies included in the sample analyzed for the financial years ended 2019 and 2020, and the analysis data was made with SPSS 23.0 software.

For processing, the identified variables and their description are presented in **Table no. 1**.

Table no. 1. List of identified variables and their description

Variable	Variable Symbol	Value
1. General Variables		
Field_act1	Activity Field 1	Production
		Trade
		Services
Field_act2	Activity Field 2	Manufacturing Industry
		Trade
		Chemical-Pharmaceutical
		Services
		Building
Auditor	Auditor	Energy-Oil
		Big Four and International Affiliates
Opinion_20_1	Audit Opinion 2020 1	Not Affiliated International
		Unqualified
Opinion_20_2	Audit Opinion 2020 2	Qualified
		Unmodified opinion
		Opinion with reservations
		Contrary Opinion
2.1. Inherent Risk Factors - Managerial		
Lead_Share	Leading Shareholders	Over 10%
		Less than 10%
Fin_Poz	Financial Position	Financially dependent ($E^1/EL^2 < 0,33$)
		Financially independent ($E/EL > 0,33$)
Immed_Liquid	Immediate liquidity	Liquidity problems ($CCE^3/STL^4 < 0,3$)
		Satisfactory liquidity ($CCE/STL > 0,3$)
2.2. Inherent Risk Factors - Accounting		
Trans_Relat	Transactions with Related Parties	Yes
		Not
Complex_Op	Complex operations and significant accounting estimates	Yes
		Not
Changes_DFA	Changes in the Department Financial Accountant	Yes
		Not
2.3. Inherent Risk Factors - Operational		
Litig	Litigation with significant impact	Yes
		Not
ST_Loans	Short-Term Loans	Yes
		Not
TR_20_19	Turnover Rate 2020/2019 (NI^5/T^6)	Decrease
		Maintenance / Growth

Variable	Variable Symbol	Value
2.4. Inherent Risk Factors - Audit		
Opinion_19	Audit Opinion 2019	Qualified Unqualified
Go_Conc	Going Concern	Business continuity issues Business continuity
App_Audit	Appointment Auditor Late	Yes Not
Limit_acces_inf	Limiting access to information / Non-confirmations	Yes Not
IR	Inherent Risk	High Medium Low
3. Control Risk Factors		
Code_Eth	Code of Ethics	Not Yes
Struct_IA	Distinct Structure of Internal Audit	Not Yes
Code_G_BSE	Respected BSE Governance Code	Partial Integral
Mg_Syst_QEHOS	Mg System of Quality, Environment, Health and Occupational Safety	Partial System - Quality and Environment Integrated System
AC_Pol	Anti-Corruption Policies	Not Yes
NAS_2016_2020	National Anticorruption Strategy 2016-2020	Non-adherence Adherence
Indep_audit_Comm	Independent Audit Committee	Not Yes
Mg_Syst	Management System	Unitary Dual
Change_Lead	Change of Leadership	Yes Not
Int_Ctrl_Syst	Internal Control System	Inefficient Efficient
Own_Sh	Own Shares	Yes Not
Loans_Assoc	Loans received from Associates	Yes Not
Rem_Pol	Remuneration Policy	Nontransparent Transparent
CR	Control Risk	High Medium Low
4. Detection Risk Factors		
NI_Var_20_19	Net Income Variation 2020-2019	Significantly Insignificant
T_Var_20_19	Turnover Variation 2020-2019	Significantly Insignificant
E_Var_20_19	Equity Variation 2020-2019	Significantly Insignificant
A_Var_20_19	Asset Variation 2020-2019	Significantly Insignificant

Variable	Variable Symbol	Value
NE_Var_20_19	Variation in the Number of Employees 2020-2019	Significantly Insignificant
DR	Detection Risk	High Medium Low
AR	Audit Risk	High Medium Low
Notes: ¹ E – Equity ² EL – Equity and Liabilities ³ CCE – Cash and Cash Equivalent ⁴ STL – Short Term Liabilities ⁵ NI – Net Income ⁶ T – Turnover		

Source: Own processing

The variables presented in Table no. 1 are structured as follows: general variables, variables related to inherent risk, variables related to control risk and variables related to detection risk. The General Variables identified include: the field of activity with values for a synthetic and a more analytical variant; the auditor, who is part of the Big Four or is an international affiliate, respectively is not part of these categories; unqualified or qualified opinion, with the related variants. The variables related to the Inherent Risk are structured on four directions: Management, Accounting, Activity of the entity and its Audit. For each direction, variables were identified depending on their relevance, but also depending on the availability of data to be collected. The category of Control Risk variables includes factors that characterize the entity's internal control system and give a measure of control risk. Most variables are qualitative, and numerical variables have been transformed into categorical variables by discretizing some economic and financial indicators. To characterize the Risk of Detection, the identified variables are numerical variables transformed into categorical variables. The more important the variations of the mentioned indicators, the higher the risk of detection (ICAS & CAFR (2019). At the synthetic level, the inherent risk, the control risk and the detection risk were established as having the qualifier: high, medium and small, starting from the identified variables, which represent risk factors. For the inherent and control risks, a number of 13 risk factors are identified, and for the risk of detection, 5 risk factors. The risk assessment followed an approach similar to that of the GQA (with a step more serious than reality), only that

we first assigned quantitative factors, depending on the existence of the identified risks and, subsequently, ratings (≥ 6 , high risk; 3-5, medium risk: ≤ 2 , low risk). The same was done with the risk of detection, the maximum number of identified variables being equal to 5 (≥ 3 -high risk; 2-medium risk; 1-low risk). The audit risk was finally assessed starting from its components and applying the same reasoning - a step worse than reality.

Therefore, starting from the literature, to estimate the audit risk components, a quantitative approach was followed, followed by a qualitative approach (Demartini & Trucco, 2016), in the sense that, first, a risk factor was associated with each component, depending on the number of risk factors identified by data collection, and then, depending on the risk factor, the ratings were associated, going only on three variants: high, medium, low.

Multiple linear regression models are used to test the influence of risk factors on the components of audit risk, but also of the inherent risk, control and detection on audit risk (Jaba, 2008), and to identify the associations between the object of activity, auditor, the size of the audit risk and the opinion formulated in the audit report use the Factor Analysis of Multiple Correspondences (FAMC), as a method of multivariate data analysis (Pintilescu, 2007).

4. Results and discussions

To test the first research hypothesis: 1. At the level of Romanian companies listed on the BSE on the regulated market, the risk factors related to the audit risk

components can be ranked according to their influence on the Inherent Risk, Control Risk and Detection Risk, models are used of multiple linear regression (1, 2 and 3).

The first regression model shows the influence of risk factors on the inherent risk, as indicated in equation 1:

$$IR_i = \beta_0 + \beta_1 Lead_Share_i + \beta_2 Fin_Poz_i + \beta_3 Immed_Liquid_i + \beta_4 Trans_Relat_i + \beta_5 Complex_Op_i + \beta_6 Changes_DFA_i + \beta_7 Litig_i + \beta_8 ST_Loans_i + \beta_9 TR_20_19_i + \beta_{10} Opinion_19_i + \beta_{11} Go_Conc_i + \beta_{12} App_Audit_i + \beta_{13} Limit_acces_inf_i + \varepsilon_i \quad (1)$$

where:

- IR_i represents the Inherent Risk assessed for the company i , with $i=1, \dots, 66$, who can receive one of the three grades described in Table 1;
- $Lead_Share_i, Fin_Poz_i, Immed_Liquid_i, Trans_Relat, Complex_Op_i, Changes_DFA_i, Litig_i, ST_Loans_i, TR_20_19_i, Opinion_19_i, Go_Conc_i, App_Audit_i, Limit_acces_inf_i$ are the risk factors related to the

- inherent risk described in Table 1 for the company i , with $i=1, \dots, 66$;
- $\beta_{i=0, \dots, 13}$ represents the parameters of the regression models;
- ε_i represents the error component, $\varepsilon \sim N(0, 1)$.

For the interpretation of the processing, an extract from the results obtained is presented in Table no. 2.

Variables included in the model	β	Stand β	t	Sig
Lead_Share	.274	.214	3.267	.002
Fin_Poz	.233	.141	1.633	.108
Immed_Liquid	.364	.283	3.541	.001
Trans_Relat	.300	.205	2.749	.008
Complex_Op	.419	.202	2.944	.005
Changes_DFA	.309	.197	2.958	.005
Litig	.179	.136	2.112	.039
ST_Loans	.112	.086	1.119	.268
TR_20_19	.407	.316	4.755	.000
Opinion_19	.232	.155	1.984	.053
Go_Conc	.328	.229	2.630	.011
App_Audit	.657	.245	2.792	.007
Limit_acces_inf	-.066	-.397	-.397	.693
Constant	-4,207		-7.194	.000

R^2 is 0,798; N=66

Regression Model 1 (IR): $IR_i = \beta_0 + \beta_1 Lead_Share_i + \beta_2 Fin_Poz_i + \beta_3 Immed_Liquid_i + \beta_4 Trans_Relat_i + \beta_5 Complex_Op_i + \beta_6 Changes_DFA_i + \beta_7 Litig_i + \beta_8 ST_Loans_i + \beta_9 TR_20_19_i + \beta_{10} Opinion_19_i + \beta_{11} Go_Conc_i + \beta_{12} App_Audit_i + \beta_{13} Limit_acces_inf_i + \varepsilon_i$

Source: Own processing in SPSS 23.0

After the statistical processing performed, it can be seen that the Determination Ratio R^2 , of about 80%, shows that in this proportion, the variation of the inherent risk is explained by the independent variables. The difference is explained by the influences of other variables not included in the model. Based on the results obtained, a hierarchy of inherent risk factors can be made on the three directions on the sample studied: Management (in the first place is the risk factor: Immediate liquidity), Accounting (in the first place is the risk factor: Complex operations), company

Activity (risk factor: Profitability of the entity), company Audit (risk factor: Delayed appointment of auditor). Smaller influences have risk factors: the existence of short-term loans, financial dependence and limiting the auditor's access to information. The explanation lies in the fact that for the financial year ended at the end of 2020, the sampled entities were not over-indebted to banks, had a favorable degree of financial independence, and limited access to information by the auditor occurred in very few cases which the influence of this risk factor is the lowest.

The second regression model shows the Influence of Risk Factors on Control Risk, as indicated in equation 2:

$$CR = \beta_0 + \beta_1 Code_Eth_i + \beta_2 Struct_IA_i + \beta_3 Code_G_BSE_i + \beta_4 Mg_Syst_QEHOS_i + \beta_5 AC_Pol_i + \beta_6 NAS_2016_2020_i + \beta_7 Indep_audit_Comm_i + \beta_8 Mg_Syst_i + \beta_9 Change_Lead_i + \beta_{10} Int_Ctrl_Syst_i + \beta_{11} Own_Sh_i + \beta_{12} Loans_Assoc_i + \beta_{13} Rem_Pol_i + \varepsilon_i \quad (2)$$

where:

- CR_i represents the Control Risk assessed for the company i , with $i=1, \dots, 66$, who can receive one of the three grades described in Table 1;
- $Code_Eth$, $Struct_IA_i$, $Code_G_BSE_i$, $Mg_Syst_QEHOS_i$, AC_Pol_i , $NAS_2016_2020_i$, $Indep_audit_Comm_i$, Mg_Syst_i , $Change_Lead_i$, $Int_Ctrl_Syst_i$, Own_Sh_i , $Loans_Assoc_i$, Rem_Pol_i are

the risk factors related to the control risk described in Table 1 for the company i , with $i=1, \dots, 66$;

- $\beta_{=0, \dots, 13}$ represents the parameters of the regression models;

- ε_i represents the error component, $\varepsilon \sim N(0, 1)$.

For the interpretation of the processing, an extract from the results obtained is presented in Table no. 3.

Table no. 3. Parameter estimates for the second regression model (CR)

Variables included in the model	β	Stand β	t	Sig
Code_Eth	.271	.206	1.151	.255
Struct_IA	.229	.160	2.035	.047
Code_G_BSE	.418	.239	2.937	.005
Mg_Syst_QEHOS	.029	.023	.303	.763
AC_Pol	.289	.218	2.219	.031
NAS_2016_2020	.542	.240	3.307	.002
Indep_audit_Comm	.040	.030	.348	.729
Mg_Syst	.348	.154	2.543	.014
Change_Lead	.146	.100	1.492	.142
Int_Ctrl_Syst	.046	.035	.187	.852
Own_Sh	.332	.214	2.953	.005
Loans_Assoc	.507	.162	2.439	.018
Rem_Pol	.185	.141	1.821	.074
Constant	-3.512		-6.254	.000

R^2 is 0,818; N=66

Regression Model 2 (CR):

$$CR = \beta_0 + \beta_1 Code_Eth_i + \beta_2 Struct_IA_i + \beta_3 Code_G_BSE_i + \beta_4 Mg_Syst_QEHOS_i + \beta_5 AC_Pol_i + \beta_6 NAS_2016_2020_i + \beta_7 Indep_audit_Comm_i + \beta_8 Mg_Syst_i + \beta_9 Change_Lead_i + \beta_{10} Int_Ctrl_Syst_i + \beta_{11} Own_Sh_i + \beta_{12} Loans_Assoc_i + \beta_{13} Rem_Pol_i + \varepsilon_i$$

Source: Own processing in SPSS 23.0

According to the Determination Report R^2 , over 80% of the variation of the Control Risk is explained by the independent variables. The difference is explained by the influences of other variables not included in the model. Here, too, a hierarchy of control risk factors can be made, in the first places are the risk factors: non-adherence to the National Anticorruption Strategy, the existence of loans received from associates and partial compliance with the Corporate Governance Code. In the last places, there are risk factors that refer to the

inefficiency of internal control and the adoption of the Management System of Quality, Environment, Health and Occupational Safety. The result obtained is explained by the fact that for the risk factor, the inefficiency of internal control, only the data from the audit reports were taken, which reported this aspect in a few cases.

The third regression model shows the Influence of Risk Factors on Detection Risk, as shown in equation 3:

$$DR = \beta_0 + \beta_1 NI_Var_20_19 + \beta_2 T_Var_20_19 + \beta_3 E_Var_20_19 + \beta_4 A_Var_20_19 + \beta_5 NE_Var_20_19 + \varepsilon_i \quad (3)$$

where:

- DR_i represents the Detection Risk assessed for the company i , with $i=1, \dots, 66$, who can receive one of the three grades described in **Table no. 1**;
- $NI_Var_20_19_i, T_Var_20_19_i, E_Var_20_19_i, A_Var_20_19_i, NE_Var_20_19_i$ are the risk factors

related to the detection risk described in Table 1 for the company i , with $i=1, \dots, 66$;

- $\beta_{=0, \dots, 5}$ represents the parameters of the regression models;
- ε_i represents the error component, $\varepsilon \sim N(0, 1)$.

For the interpretation of the processing, an extract from the results obtained is presented in **Table no. 4**.

Variables included in the model	β	Stand β	t	Sig
<i>NI_Var_20_19</i>	.323	.206	5.067	.000
<i>T_Var_20_19</i>	.688	.379	8.896	.000
<i>E_Var_20_19</i>	.859	.387	9.143	.000
<i>A_Var_20_19</i>	.519	.234	5.415	.000
<i>NE_Var_20_19</i>	.771	.424	10.118	.000
<i>Constant</i>	-3.162		13.172	.000

R^2 is 0,908; N=66

Regression Model 3 (DR):

$$DR = \beta_0 + \beta_1 NI_Var_20_19 + \beta_2 T_Var_20_19 + \beta_3 E_Var_20_19 + \beta_4 A_Var_20_19 + \beta_5 NE_Var_20_19 + \varepsilon_i$$

Source: Own processing in SPSS 23.0

In order to assess the risk of detection, according to the GQA, the auditor uses analytical procedures to verify whether there are significant variations from one period to another. If we analyze the results of the processing performed, we find that 90% of the inherent risk is explained by the calculated variations, representing the independent variables. The greatest influence is exerted by the variation of Equity, followed by the variation of the Number of employees and the variation of the Turnover for the analyzed sample. The explanation for these influences lies in the fact that in the financial year 2020, severely affected by the Covid-19 pandemic, the entities suffered due to the fact that sales fell in many sectors of

activity and some employees were laid off. The average layoffs on the analyzed sample appear to be an important risk factor for the audit risk. The results obtained are comparable to those of other studies conducted in other countries, such as the United Kingdom and Italy (Demartini & Trucco, 2016).

The second research hypothesis: 2. A better ranking of the components of audit risk - inherent risk, control risk and detection risk - helps in proper planning of the auditor's mission is tested using the regression model given in the equation below. The fourth regression model shows the Influence of Inherent, Control and Detection Risks on Audit Risk, as shown in equation 4:

$$AR_i = \beta_0 + \beta_1 IR_i + \beta_2 CR_i + \beta_3 DR_i + \varepsilon_i \quad (4)$$

where:

- AR_i represents the Audit Risk assessed for the company i , with $i=1, \dots, 66$, who can receive one of the three grades described in **Table no. 1**;
- IR_i, RC_i, DR_i represents the Inherent Risk, the Control Risk and the Detection Risk for the company i , with $i=1, \dots, 66$;

- $\beta_{=0, \dots, 3}$ represents the parameters of the regression models;
- ε_i represents the error component, $\varepsilon \sim N(0, 1)$.

For the interpretation of the processing, an extract from the results obtained is presented in **Table no. 5**.

Table no. 5. Parameter estimates for the regression model four (AR)

Variables included in the model	β	Stand β	t	Sig
IR	.393	.475	6.764	.000
CR	.240	.296	4.138	.000
DR	.299	.430	5.871	.000
Constant	-2.02		-1.409	.164

R^2 is 0,715; N=66

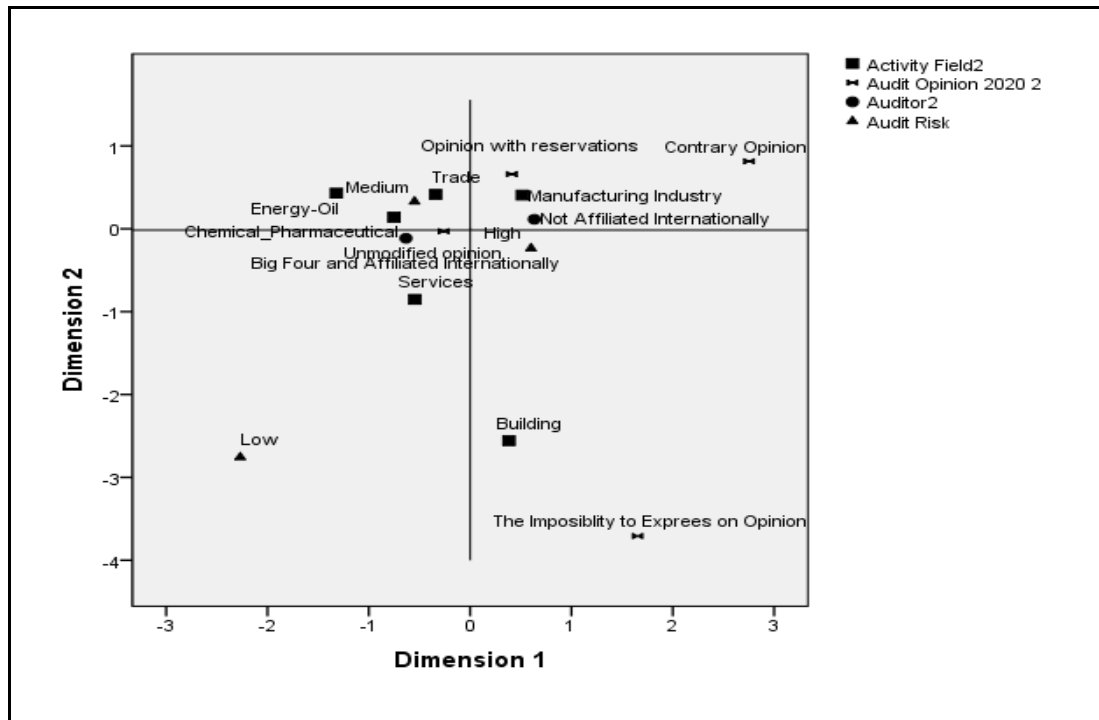
Regression model 4 (NR): $AR_i = \beta_0 + \beta_1 IR_i + \beta_2 CR_i + \beta_3 DR_i + \varepsilon_i$

Source: Own processing in SPSS 23.0

From the model described, it can be concluded that over 70% of the identified risk factors explain the audit risk, the inherent risk having the largest contribution. The difference of 30% is explained by the variables not included in the model, among which, certainly, the variable *professional reasoning* has an important influence. The results confirmed the results obtained in other studies conducted internationally (In, Kim & Park, 2020).

By testing the Research Hypothesis no. 3: *It is possible to identify a profile of the Romanian company listed on the BSE on the regulated market, depending on the object of activity, auditor, the size of the audit risk and the opinion formulated in the audit report.* auditor, the size of the audit risk and the opinion formulated in the audit report by applying the multivariate data analysis method: Factor Analysis of Multiple Correspondences (FAMC), as shown in **Figure no. 3**.

Figure no. 3. The association between the object of activity, the auditor, the size of the audit risk and the opinion formulated



Source: Own processing in SPSS 23.0, using FAMC

From **Figure no. 3**, it can be seen that the entities in the sample analyzed that operate in *the manufacturing industry* are audited by auditors that are not part of the Big Four and are not internationally affiliated, are characterized by a high audit risk, and opinions expressed in audit reports for these entities are, on average, modified opinions (with or without reservations). Companies operating in *the chemical-pharmaceutical and energy-oil fields* are audited, on average, by auditors that are part of the Big Four or are internationally affiliated, the risk assessed for these entities is medium and the opinion is unqualified. For *the trade and services fields*, at the level of the analyzed sample, the results show that the assessed audit risk is medium and low, respectively, they are audited by auditors from Big Four or who are internationally affiliated, and the opinions issued are, on average, unqualified. *The field of constructions* differs more, in view of the fact that the risk assessed for companies operating in this field is high, for the sample analyzed, auditors are often unable to issue an opinion and auditors are not affiliated internationally.

Conclusions

In audit missions, planning is a very important step, directing the auditor's entire approach. Good planning will help streamline the audit process in terms of costs and the quantity and quality of audit evidence collected. At the planning stage, an important place is held by the audit risk assessment. It is up to him to establish the significance threshold and, subsequently, the sample required for the audit. It is known that the auditor's objective is to obtain the highest possible level of assurance regarding the accuracy of the financial statements, and in order to achieve this goal, he will seek to reduce the audit risk to a minimum. A 100% degree of assurance and a complete elimination of the risk of omitting certain distortions are not possible.

In this study, at the level of the analyzed sample, a series of risk factors related to the three components of audit risk - inherent risk, control risk and detection risk - were identified and ranked in order to perform a ranking. The general conclusion is that of the three components of audit risk, the inherent risk has the greatest influence on audit risk, which leads us to the idea that the accurate

assessment of this type of risk will contribute to a good planning of the entire audit approach.

Starting from the research hypotheses formulated and tested, the results obtained from the processing highlighted a number of important aspects. First, testing the influence of risk factors on inherent risk showed that the financial indicator *immediate liquidity* has a significant influence on inherent risk, most entities in the sample studied having liquidity problems in the financial year ended late 2020. All inherent risk factors not under the control of the auditor, but a good knowledge of them by applying risk evaluation Tests help to more accurately assessing audit risk.

Regarding the control risk, most variables take into account aspects related to corporate governance, the transparency of information in this direction being a problem. However, from the published information, it was found that, at the level of the analyzed sample, there is no full compliance with the provisions of the Corporate Governance Code of BSE (Bucharest Stock Exchange). The adoption of anti-bribery and anti-corruption policies is also an important risk factor, in addition to the non-adherence of entities to the National Anticorruption Strategy. Also, the crediting of the company by the associates is a significant risk factor. The variables related to the risk of detection took into account variations of some indicators for the two analyzed periods: 2020 compared to 2019. Being the financial year affected by the Covid-19 crisis, it is observed that the primary risk factors are profitability and number of employees. The integrative regression model that reflects the influence of the inherent, control and detection risks on the audit risk highlighted the fact that the inherent risk has the greatest influence in the audit risk model. The testing of the last research hypothesis showed that certain characteristics can be identified, from the point of view of the auditor, of the risk size and of the opinion formulated by fields of activity for the companies in the analyzed sample.

Clearly, the study conducted has limitations caused by lack of transparency of financial reporting, which meant that for risk evaluation to be selected certain variables from the longer list of them. However, the relevance of the research is given by the actuality of the topic, highlighted by the map obtained with the help of VOSviewer software, which brings to the fore the risk factor: problems of business continuity, and the originality derives from the way it is approached.

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